

19



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
 United States Patent and Trademark Office
 Address: COMMISSIONER FOR PATENTS
 P.O. Box 1450
 Alexandria, Virginia 22313-1450
 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/775,103	02/11/2004	Ryo Kawahara	2023-0104002Reg	2619

22850 7590 12/22/2005

OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.
 1940 DUKE STREET
 ALEXANDRIA, VA 22314

EXAMINER

DIACOU, ARI M

ART UNIT	PAPER NUMBER
----------	--------------

3663

DATE MAILED: 12/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/775,103	Applicant(s) KAWAHARA ET AL.	
	Examiner Ari M. Diacou	Art Unit 3663	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see paragraph 3 of the remarks, filed 11-25-2005, with respect to the 102(e) rejection have been fully considered and are persuasive. The rejection of the claims has been withdrawn.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Ye et al. (USP No. 6414788) published July 2, 2002.
 - Regarding claim 1, Ye discloses an optical amplifying method in which at least one optical amplifier is connected to an optical transmission line, an optical signal transmitted to said optical transmission line is amplified by said optical amplifier while an optical power of the optical signal on the optical transmission line is detected, and gain of the optical amplifier is controlled in response to an optical power of thus detected, the method comprising the steps of:
 - detecting an optical input and output power of said optical amplifier; [Fig. 12, #76] [Col. 5, line 66 - Col. 7, line 41]

- obtaining a difference between gain of said optical amplifier and target gain on a basis of detected optical input and output power; [Fig. 12, #78] [Col. 6, lines 40-62]
 - implementing a proportional calculation and an integral calculation of said difference by an automatic constant gain control device to obtain a drive current of at least one pump laser diode provided in said optical amplifier; and . [Fig. 12, #80] [Col. 6, lines 60 - 65]
 - controlling gain of said optical amplifier by controlling current of said pump laser diode based on a calculated drive current value. [Fig. 12, #84] [Col. 7 lines 15-20]
- Regarding claim 2, Ye discloses the optical amplifying method as claimed in claim 1, further including the steps of detecting an optical input power to said optical amplifier, and adjusting control parameters of said automatic constant gain control device in response to a detected result, wherein a drive current of said pump laser diode is obtained by the automatic constant gain control device with said control parameters adjusted. [The examiner considers the weighting coefficients used by Ye to arrive at P_{PUMP} given $P_{\text{PUMP-FF}}$ and $P_{\text{PUMP-FB}}$, (Eq. (4)) which are exemplarily disclosed as 1 in Equation (5) of Ye, to be the control parameters adjusted. Ye specifically discloses in Eq. (4) that any function of these two inputs may be used to calculate the pumping power necessary.]
- Regarding claim 3, Ye discloses the optical amplifying method as claimed in claim 2, wherein in said step of adjusting said control parameters, proportional

constant of a proportional circuit in the automatic constant gain control device as said control parameters is adjusted. [Col. 6, lines 57-62]

- Regarding claim 4, Ye discloses the optical amplifying method as claimed in claim 2, wherein in said step of adjusting said control parameters, said optical input power from a optical device connected with said optical amplifying apparatus or said optical input power varied by add/drop function of an optical signal of wavelength division-multiplexing device in said optical device connected with said optical amplifying apparatus is detected, and the control parameters of said automatic constant gain control are adjusted in response to a detected result. [Ye's amplifier and its method of operation are designed to provide constant gain and suppress the effects of transient behavior, including the adding and dropping of channels] [Fig. 12, #82] [Col. 3, line 61 - Col. 5, line 29]
- Regarding claim 5, Ye discloses the optical amplifying method as claimed in claim 4, wherein in said step of adjusting said control parameters, proportional constant of a proportional circuit in the automatic constant gain control device as said control parameters is adjusted. [Col. 5, line 66 - Col. 7, line 41]

Conclusion

4. While patent drawings are not drawn to scale, relationships clearly shown in the drawings of a reference patent cannot be disregarded in determining the patentability of claims. See In re Mraz, 59 CCPA 866, 455 F.2d 1069, 173 USPQ 25 (1972).

5. The references made herein are done so for the convenience of the applicant. They are in no way intended to be limiting. The prior art should be considered in its entirety.
6. The prior art which is cited but not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ari M. Diacou whose telephone number is (571) 272-5591. The examiner can normally be reached on Monday - Friday, 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Keith can be reached on (571) 272-6878. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AMD 12/16/2005


JACK KEITH
SUPERVISORY PATENT EXAMINER